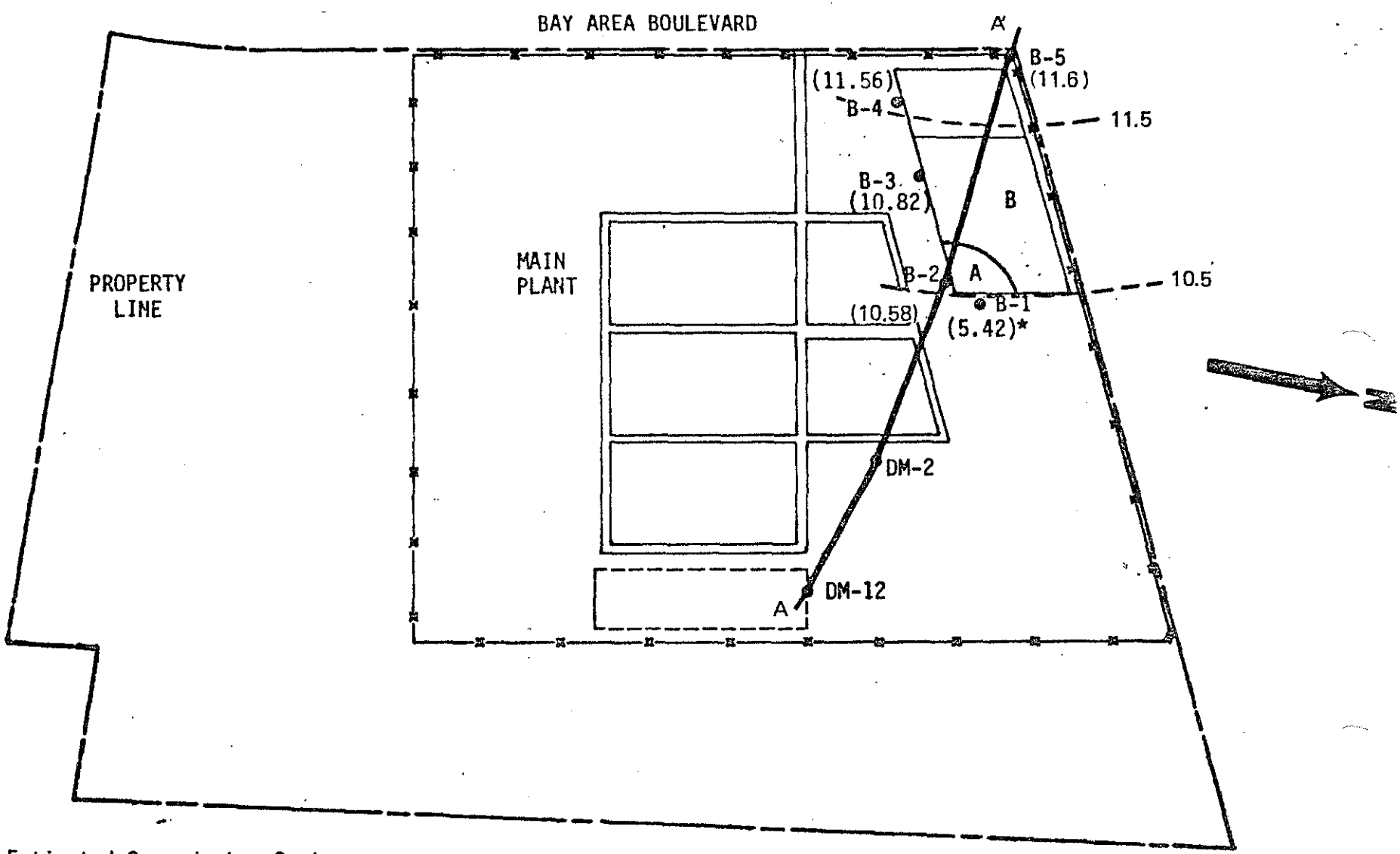
TABLE II

PARAMETER	H_2O_2 BIO/SAN STREAM	BIO/SAN SURFACE IMPOUNDMENT	
		Impoundment Sludge (Extract)	Impoundment Water
pH	9.9	5.5	8.8
Flash Point	>212°F	>212°F	>212°F
Barium (mg/l)	0.087	0.149	0.071
Cadmium (mg/l)	0.001	0.008	0.001
Chromium (mg/l)	0.029	0.013	0.04
Lead (mg/l)	0.045	0.027	0.008
Silver (mg/l)	0.001	0.001	0.0
Arsenic (µg/l)	6	ND(<0.005 mg/l)	0.01
Selenium (mg/l)	ND(<0.005)	ND(<0.005)	<0.01
Mercury (mg/l)	ND(<0.001)	ND(<0.001)	0.002



– – – Estimated Groundwater Contour
(11.6) Measured Groundwater Elevation
(5.42)* Measured Groundwater Elevation in Lower Aquifer

B-1 Groundwater Monitoring Well
DM-2 Previously Drilled Soil Test Boring

Figure 1
Well Location Plan
FMC BAYPORT PLANT
LETCo Job No. HT-770-81G

ATTACHMENT A

EPA DRINKING WATER SUITABILITY PARAMETERS
40 CFR 264.92

EPA Parameter Standard	B-2 (35 Ft) Down-gradient)	B-3 (35 Ft) Down-gradient)	B-4 (40 Ft) Down-gradient)	B-5 (35 Ft) Upgradient	Detection Limit
Arsenic 0.05 mg/1	ND	ND	ND	ND	0.002 mg/1
Barium 1.0 mg/1	ND	ND	ND	ND	0.5 mg/1
Cadmium 0.01 mg/1	0.01	0.01	0.01	0.01	0.005 mg/1
Chromium 0.05 mg/1	0.01	0.01	0.01	0.01	0.005 mg/1
Fluoride 1.4-2.4 mg/1	1.39	1.13	1.25	1.28	0.2 mg/1
Lead 0.05 mg/1	ND	ND	ND	0.004	0.003 mg/1
Mercury 0.002 mg/1	0.0056	0.0042	0.0042	ND	0.001 mg/1
[1]Resample	ND	ND	ND	ND	
Nitrate 10 mg/1	0.07	0.07	ND	ND	0.05 mg/1
Selenium 0.01 mg/1	0.01	0.01	ND	0.01	0.005 mg/1
Silver 0.05 mg/1	0.01	0.01	0.01	0.01	0.005 mg/1
Endrin 0.002 mg/1	ND	ND	ND	ND	0.0002 mg/1
Lindane 0.004 mg/1	ND	ND	ND	ND	0.002 mg/1
Methoxychlor 0.1 mg/1	ND	ND	ND	ND	0.005 mg/1
Toxaphene 0.005 mg/1	ND	ND	ND	ND	0.005 mg/1
2,4-D 0.1 mg/1	ND	ND	0.01	0.01	0.004 mg/1
2,4,5-TP Silvex 0.01 mg/1	0.005	0.005	0.005	0.005	0.002 mg/1
Radium 5pCi/1	ND	1.3 $\pm$ 0.8	ND	ND	0.6 pCi/1
Gross Alpha 15pCi/1	ND	ND	ND	ND	2 pCi/1
[2]Gross Beta 4 Millirems/yr	7 $\pm$ 2	3 $\pm$ 2	4 $\pm$ 2	4 $\pm$ 2	3 pCi/1
Coliform Bacteria Most Probable No. (MPN)	13	2	7	33	1 MPN

Sampled on 9/15/81 - Weather conditions sunny and hot
[1]Sampled on 10/27/81 - Weather conditions sunny and cool
[2]Samples measured for concentration in pCi/1 and have not been converted to millirems/yr
ND - Non Detectable

EPA DRINKING WATER SUITABILITY PARAMETERS
40 CFR 264.92

EPA Parameter	B-2 (35 Ft) (Downgradient)	B-3 (35 Ft) (Downgradient)	B-4 (40 Ft) (Downgradient)	B-5 (35 Ft) (Upgradient)	Detection Limit
Chloride mg/l	97.0	94.0	117.0	300.0	1 mg/l
Iron mg/l	0.5	0.2	ND	ND	0.1 mg/l
Manganese mg/l	0.34	ND	ND	ND	0.05 mg/l
Phenols mg/l	ND	ND	ND	ND	0.1 mg/l
Sodium mg/l	126.0	122.0	85.2	522.0	0.01 mg/l
Sulfate mg/l	64.0	86.0	35.0	26.0	1 mg/l

Sampled on 9/15/81 - Weather conditions sunny and hot
ND - Non Detectable

ATTACHMENT A

EPA DRINKING WATER SUITABILITY PARAMETERS
40 CFR 264.92

EPA Parameter	B-2 (35 Ft) (Downgradient)	B-3 (35 Ft) (Downgradient)	B-4 (40 Ft) (Downgradient)	B-5 (35 Ft) (Upgradient)	Detecti Limit
pH					
Sample 1	7.39	7.58	7.44	7.45	
Sample 2	7.41	7.59	7.43	7.43	
Sample 3	7.41	7.58	7.43	7.48	
Sample 4	7.42	7.57	7.44	7.50	
Mean	7.41	7.58	7.43	7.46	
Varience	0.0011	0.00005	0.00002	0.00072	
Specific Conductance in umho/cm					
Sample 1	1240	1140	1270	1870	1 umho/cr
Sample 2	1240	1160	1280	1840	
Sample 3	1220	1160	1280	1870	
Sample 4	1220	1150	1300	1870	
Mean	1230	1152.5	1282.5	1862.5	
Varience	100	68.8	118.8	168.8	
Total Organic Carbon in mg/l					
Sample 1	4	5	18	14	
Sample 2	3	7	17	21	1 mg/l
Sample 3	3	6	12	16	
Sample 4	4	5	14	18	
Mean	3.5	5.9	15.4	17.30	
Varience	0.25	0.69	5.69	6.69	
Total Organic Halogens in mg/l					
Sample 1	30	12	33	65	10 mg/l
Sample 2	31	19	57	59	
Sample 3	20	27	31	98	
Sample 4	17	48	89	173	
Mean	24.5	26.5	52.5	98.8	
Varience	37.3	182.3	548.8	2058.2	

Sampled on 9/15/81 - Weather conditions sunny and hot

ATTACHMENT B

TABLE I.

EPA DRINKING WATER SUITABILITY PARAMETERS

40 CFR 264.92

EPA Parameter Standard	B-2 35 ft Downgradient	B-3 35 ft Downgradient	B-4 40 ft Downgradient	B-5 35 ft Upgradient	Detection Limit
Arsenic 0.05 mg/l	ND	ND	ND	ND	0.005 mg/l
Barium 1.0 mg/l	0.6	0.51	0.58	ND	0.5 mg/l
Cadmium 0.01 mg/l	ND	ND	ND	ND	0.01 mg/l
Chromium 0.05 mg/l	ND	ND	ND	ND	0.02 mg/l
Fluoride 1.4-2.4 mg/l	1.00	1.10	0.85	1.2	0.2 mg/l
Lead 0.05 mg/l	0.011	0.008	ND	ND	0.005 mg/l
Mercury 0.002 mg/l	0.0014	ND	ND	ND	0.001 mg/l
Nitrate 10 mg/l	ND	0.06	ND	ND	0.05 mg/l
Selenium 0.01 mg/l	ND	ND	0.008	0.0065	0.005 mg/l
Silver 0.05 mg/l	ND	ND	ND	ND	0.02 mg/l
Endrin 0.002 mg/l	ND	ND	ND	ND	0.0002 mg/l
Lindane 0.004 mg/l	ND	ND	ND	ND	0.0002 mg/l
Methoxychlor 0.1 mg/l	ND	ND	ND	ND	0.001 mg/l
Toxaphene 0.005 mg/l	ND	ND	ND	ND	0.002 mg/l
2,4-D 0.1 mg/l	ND	ND	ND	ND	0.0018 mg/l
2,4,5-TP Silvex 0.01 mg/l	ND	ND	ND	ND	0.0009 mg/l
*Radium 5pCi/l	ND	ND	ND	ND	
*Gross Alpha 15pCi/l	0 ± 11	1 ± 9	4 ± 9	1 ± 10	
*Gross Beta 4 millirems/yr	12 ± 9	1 ± 8	1 ± 8	3 ± 8	
Coliform Bacteria Most Probable No. (MPN)	6.8	6.8	<2	<2	1 MPN

ND = Non Detectable

Sampled on 2/11/82 and 2/12/82

Weather condition - partly sunny and mild

*Analysis in pCi/l

TABLE II.

EPA DRINKING WATER SUITABILITY PARAMETERS
40 CFR 264.92

EPA Parameter	B-2 35 ft Downgradient	B-3 35 ft Downgradient	B-4 40 ft Downgradient	B-5 35 ft Upgradient	Detection Limit
Chloride mg/l	87.0	67.0	97.0	220	1 mg/l
Iron mg/l	0.58	0.35	0.086	0.13	0.1 mg/l
Manganese mg/l	0.56	0.73	0.18	0.063	0.05 mg/l
Phenols mg/l	ND	ND	ND	ND	0.1 mg/l
Sodium mg/l	150	140	110	210	0.01 mg/l
Sulfate mg/l	15.0	12.0	30	5.5	1 mg/l

ND = Non Detectable

Sampled on 2/11/82 and 2/12/82

Weather conditions - partyly sunny and mild

ATTACHMENT B

TABLE III.

EPA DRINKING WATER SUITABILITY PARAMETERS

40 CFR 264.92

EPA Parameter	B-2 35 ft Downgradient	B-3 35 ft Downgradient	B-4 40 ft Downgradient	B-5 35 ft Upgradient	Detection Limit
pH					
Sample	7.4	7.4	7.4	7.3	
Replicate 1				7.3	
Replicate 2				7.3	
Replicate 3				7.3	
Mean				7.3	
Variance				0.0	
Specific Conductance in umho/cm					
Sample	1210	1080	1291	1760	1 umho/cm
Replicate 1				1760	
Replicate 2				1760	
Replicate 3				1760	
Mean				1760	
Variance				0.0	
Total Organic Carbon in mg/l					
Sample	3	10	30	6	1 mg/l
Replicate 1				6	
Replicate 2				5	
Replicate 3				4	
Mean				5.25	
Variance				0.9175	
Total Organic Haolgens in µg/l					
Sample	36	29	26	180	10 µg/l
Replicate 1				170	
Replicate 2				160	
Replicate 3				130	
Mean				160	
Variance				466.6	

Sampled on 2/11/82 and 1/12/82
Weather contitions - party sunny and mild

ATTACHMENT C
Page 1 of 4

TEXAS DEPARTMENT OF WATER RESOURCES
Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

TDWR Generator's Registration No. or TSD Facility Permit No. 3 0 6 1 4

EPA TSD Fac. No. or Gen. No. T X D 0 8 3 5 7 0 0 5 1

Company Well Number B - 2

Gradient Up ☐ Down X

Report for. 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC Corporation Phone: (713) 474-4171

Business Address: 12000 Bay Area Blvd. Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units Sample Type	Depth of Well	pH Standard Grab	Conductivity µmhos/cm Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
6/4/82	35 ++	7.2 +	1140 +	8	0.048	94 +	0.35	0.64	<0.1	156	15+

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
6/4/82	ND <0.01	ND <0.5	ND <0.01	ND <0.02	1.2 +	0.007	0.001	0.24	ND <0.01	ND <0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Bacteria MPN Grab
Date										
6/4/82	ND <0.0002	ND <0.0002	ND <0.002	ND <0.005	ND <0.001	ND<0.0005	<2	<2	59±4	<2
	+= Sampled on 8/6/82									

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. S. Yuan — Prepared By

CA Thompson — Signature of Authorized Agent

9-3-82 — Date

ATTACHMENT C
Page 2 of 4

TEXAS DEPARTMENT OF WATER RESOURCES
Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

TDWR Generator's Registration No. or TSD Facility Permit No.: 3 0 6 1 4

EPA TSD Fac. No. or Gen. No.: T X D 0 8 3 5 7 0 0 5 1

Company Well Number: B - 3

Gradient Up [ ] Down [X]

Report for: 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC Corporation Phone: (713) 474-4171

Business Address: 12000 Bay Area Blvd. Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units Sample Type	Depth of Well	pH Standard Grab	Conductivity Imhos/cm Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
6/4/82	35++	7.3+	1110+	4	0.027	78+	0.6	0.99	<0.1	140	12+
					"						

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
6/4/82	ND<0.01	ND <0.5	ND<0.01	ND<0.02	1.2+	0.009	ND<0.001	0.17	ND<0.01	ND<0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Bacteria MPN Grab
Date										
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	5 ± 2	34±23 *	17±3	<2
	+=Sampled on 8/6/82									

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. Steven Yuan — Prepared By

C A Thompson — Signature of Authorized Agent

9-3-82 — Date

*Considering the reliability and limited accuracy of the analytical method (as discussed in the TDWR 7/26/82 Houston Solid Waste Management Seminar) and the fact that FMC has never processed or generated any radioactive material at the Bayport plant, we conclude that this does not represent groundwater contamination by FMC.

ATTACHMENT C
Page 3 of 4

TEXAS DEPARTMENT OF WATER RESOURCES
Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

TDWR Generator's Registration No. or TSD Facility Permit No. 3 0 6 1 4

EPA TSD Fac. No. or Gen. No. T X D 0 8 3 5 7 0 0 5 1

Company Well Number B - 4

Gradient Up [ ] Down [X]

Report for: 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC Corporation Phone: (713) 474-4171

Business Address: 12000 Bay Area Blvd. Pasadena, Texas Zip: 77507

TABLE 1

Parameter / Units / Sample Type	Depth of Well	pH Standard Grab	Conductivity µmho/cm Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **					-	
6/4/82	40 ++	7.0 +	1350 +	4	0.056	100 +	0.14	0.34	<0.1	73.1	29 +

TABLE 2

Parameter / Units / Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
6/4/82	ND<0.01	ND<0.5	ND<0.01	ND<0.02	1.0 +	ND<0.005	ND<0.001	ND<0.05	ND<0.01	ND<0.02

Parameter / Units / Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Present MPN Grab
Date										
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	<2	52±26 *	18±3	4.0
	+=Sampled on 8/6/82									

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. Steven Yuan — Prepared By

C A Thompson — Signature of Authorized Agent

9-3-82 — Date

* Considering the reliability and limited accuracy of the analytical method (as discussed in the TDWR 7/26/82 Houston Solid Waste Management Seminar) and the fact that FMC has never processed or generated any radioactive material at the Bayport plant, we conclude that this does not represent groundwater contamination by FMC.

ATTACHMENT C
Page 4 of 4

TEXAS DEPARTMENT OF WATER RESOURCES
Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

TDWR Generator's Registration No. or TSD Facility Permit No. 3 0 6 7 4

EPA TSD Fac. No. or Gen. No. T X D 0 8 3 5 7 0 0 5 1

Company Well Number B - 5

Gradient Up X Down

Report for: 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC Corporation Phone: (713) 474-4171

Business Address: 12000 Bay Area Blvd. Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units Sample Type	Depth of Well	pH Standard Grab	Conductivity µmho/cm Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
6/4/82	35 ++	7.4 ± 0 +	1637.5±25 +	5.5 ± 0.33 +	.026±.00025 +	250 +	2.09	0.038	<0.1	218	5.8 +

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
6/4/82	0.029	ND<0.5	ND<0.01	ND<0.02	1.3 +	ND<0.005	ND<0.001	0.05	ND<0.01	ND<0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Bacteria MPN Grab
Date										
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	<5	<2	29 ± 3	<2
	+=Sampled on 8/6/82									

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. Steven Yuan — Prepared By

C A Thompson — Signature of Authorized Agent

9-3-82 — Date

Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

or TSD Facility Permit No.

EPA TSD Fac. No. or Gen. No. | T | X | D | 0 | 8 | 3 | 5 | 7 | 0 | 0 | 5 | 1 |

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

Company Well Number | | B | - | 2 |

Gradient Up [ ] Down [X]

Report for: 1 2 19 8 2

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC CORPORATION Phone: (713) 474-4171

Business Address: 12000 Bay Area Boulevard, Pasadena, Texas Zip: 77507

TABLE 1

Parameter / Units / Sample Type	Ground Water Elev. Ft. Sample Occurence	pH Standard Grab	Conductivity µmhos mg/l Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date	MSL										
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
9/15/81	10.58	7.41±.00011	1230± 100	3.5±0.25	24.5	97	0.49	0.34	0.1	126	64
2/11/82	NA	7.4	1210	3	36	87	0.58	0.56	ND<0.1	150	15
6/4/82	NA	7.2	1140	8	0.048	94	0.35	0.64	<0.1	156	15
9/17/82	9.25	7.7	1160	6	18	97	0.42	1.1	<0.1	160	17

TABLE 2

Parameter / Units / Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
9/15/81	ND<0.002	ND<0.5	0.01	0.01	1.39	ND<0.003	ND<0.001	0.07	0.01	0.01
2/11/82	ND<0.005	0.6	ND<0.01	ND<0.02	1.00	0.011	0.0014	ND<0.05	ND<0.005	ND<0.02
6/4/82	ND<0.01	ND<0.5	ND<0.01	ND<0.02	1.2	0.007	0.001	0.24	ND<0.01	ND<0.02
9/17/82	ND<0.005	ND<0.5	ND<0.01	ND<0.02	1.1	ND<0.005	ND<0.002	0.17	ND<0.005	ND<0.02

Parameter / Units / Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Criteria MPN Grab
Date										
9/15/81	ND<0.0002	ND<0.002	ND<0.005	ND<0.005	ND<0.004	0.005	ND	ND<2	7±2	13
2/11/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.002	ND<0.0018	ND<0.0009	ND	0±11	12±9	6.8
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	<2	<2	59±4	<2
9/17/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.005	ND<0.001	ND<0.0005	<5	<2	6±2	<2

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. S. Yuan
Prepared By

C A Thompson
Signature of Authorized Agent

11/17/82
Date

OWR-0910

Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

or TSD Facility Permit No. 3 0 6 1 4

EPA TSD Fac. No. or Gen. No. T X D 0 8 3 5 7 0 0 5 1

Company Well Number B - 3

Gradient Up [ ] Down [X]

Report for: 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC CORPORATION Phone: (713)474-4171

Business Address: 12000 Bay Area Boulevard, Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units nple Type	Ground Water Elev. Ft. MSL Sample Occurence	pH Standard Grab	Conductivity µmhos mg/l Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
9/15/81	10.82	7.58±0	1152.5±68.8	5.85±.69	26.5	94	0.2	ND<0.05	0.1	122	86
2/11/82	NA	7.4	1080	10	29	67	0.35	0.73	ND<0.1	140	12
6/4/82	NA	7.3	1110	4	0.027	78	0.6	0.99	<0.1	140	12
9/17/82	9.65	7.4	1066	5	19	76	0.31	0.74	<0.1	89	14

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
9/15/81	ND<0.002	ND<0.5	0.01	0.01	1.13	ND<0.003	ND<0.001	0.07	0.01	0.01
11/82	ND<0.005	0.51	ND<0.01	ND<0.02	1.10	0.008	ND<0.001	0.06	ND<0.005	ND<0.02
6/4/82	ND<0.01	ND<0.5	ND<0.01	ND<0.02	1.2	0.009	ND<0.001	0.17	ND<0.01	ND<0.02
9/17/82	ND<0.005	ND<0.5	ND<0.01	ND<0.02	1.1	ND<0.005	ND<0.002	0.16	ND<0.005	ND<0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform MPN Grab
Date										
9/15/81	ND<0.0002	ND<0.002	ND<0.005	ND<0.005	ND<0.004	0.005	1.3±0.8	ND<2	3±2	2
2/11/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.002	ND<0.0018	ND<0.0009	ND	1±9	1±8	6.8
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	5±2	34±23*	17±3	<2
9/17/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.005	ND<0.001	ND<0.0005	<5	<2	3±2	4.5

*The replicat measurement was 33±13 Pci/L.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. S. Yuan
Prepared By

C.A. Thompson
Signature of Authorized Agent

4/17/82
Date

Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

ATTACHMENT D - Page 3 of 4 or TSD Facility Permit No.

EPA TSD Fac. No. or Gen. No. | T | X | D | 0 | 8 | 3 | 5 | 7 | 0 | 0 | 5 | 1 |

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

Company Well Number | | B | - | 4 |

Gradient Up [ ] Down [X]

Report for: 1 2 19 8 2

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC CORPORATION Phone: (713)474-4171

Business Address: 12000 Bay Area Boulevard, Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units Sample Type	Ground Water Elev. FMSL Sample Occurence	pH Standard Grab	Conductivity µmhos mg/l Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± **	± **	± **	± **						
9/15/81	11.56	7.43±.0	1283±119	15.35±5.69	52.5	117	0.14	ND<0.05	0.1	85.2	35
2/11/82	NA	7.4	1291	30	26	97	0.086	0.18	ND<0.1	110	30
6/4/82	NA	7.0	1350	4	0.056	100	0.14	0.34	<0.1	73.1	29
9/17/82	9.38	7.1	1281	6	12	100	0.093	0.24	<0.1	77	32

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
9/15/81	ND<0.002	ND<0.5	0.01	0.01	1.25	ND<0.003	ND<0.001	ND<0.05	ND<0.005	0.01
2/11/82	ND<0.005	0.58	ND<0.01	ND<0.02	0.85	ND<0.005	ND<0.001	ND<0.05	0.008	ND<0.02
6/4/82	ND<0.01	ND<0.5	ND<0.01	ND<0.02	1.0	ND<0.005	ND<0.001	ND<0.05	ND<0.01	ND<0.02
9/17/82	ND<0.005	ND<0.5	ND<0.01	ND<0.02	0.89	ND<0.005	ND<0.002	ND<0.05	ND<0.005	ND<0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Bacteria MPN Grab
Date										
9/15/81	ND<0.0002	ND<0.002	ND<0.005	ND<0.005	0.01	0.005	ND	ND<2	4±2	7
2/11/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.002	ND<0.0018	ND<0.0009	ND	4±9	1±8	<2
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	<2	52±26*	18±3	4.0
9/17/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.005	ND<0.001	ND<0.0005	<5	<2	5±2	<2

*The replicate measurement was 24±10 pCi/l

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. S. Yuan
Prepared By

C A Thompson
Signature of Authorized Agent

11/17/82
Date

Shipping Control & Effluent Reports Unit
Enforcement and Field Operations
P. O. Box 13087, Capitol Station
Austin, Texas 78711

or TSD Facility Permit No. 3 0 6 1 4

EPA TSD Fac. No. or Gen. No. T X D 0 8 3 5 7 0 0 5 1

Company Well Number B - 5

Gradient Up X Down

Report for: 1 2 19 8 2

GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES

To be completed by the owner/operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste. (See reverse side for instructions.)

Company Name: FMC Corporation Phone: (713) 474-4171

Business Address: 12000 Bay Area Boulevard, Pasadena, Texas Zip: 77507

TABLE 1

Parameter Units Sample Type	Ground Water Elev. Ft. Sample Occurence MSL	pH Standard Grab	Conductivity µmhos mg/l Grab	Total Organic Carbon mg/l Grab	Total Organic Halogen mg/l Grab	Chloride mg/l Grab	Iron mg/l Grab	Manganese mg/l Grab	Phenols mg/l Grab	Sodium mg/l Grab	Sulfate mg/l Grab
Date											
**First Year (initial) Background arithmatic mean		± 7.4±0 **	1704±135/2 **	8.5±25.8*	85±3261 **						
9/15/81	11.6	7.46± 0	1863±169	17.3±6.69	98.7±2058	300	0.16	ND<0.05	0.1	552	26
2/11/82	NA	7.3±0	1760±0	5.25±0.92	160±466.6	220	0.13	0.063	ND<0.1	210	5.5
6/4/82	NA	7.4±0	1637.5±25	5.5±0.33	.026±.0003	250	2.09	0.038	<0.1	218	5.8
9/17/82	9.4	7.42±0	1557±36	6±0	81.5-140.7	240	0.18	0.044	<0.1	240	5.8

TABLE 2

Parameter Units Sample Type	Arsenic mg/l Grab	Barium mg/l Grab	Cadmium mg/l Grab	Chromium mg/l Grab	Fluoride mg/l Grab	Lead mg/l Grab	Mercury mg/l Grab	Nitrate mg/l Grab	Selenium mg/l Grab	Silver mg/l Grab
Date										
9/15/81	ND<0.002	ND<0.5	0.01	0.01	1.28	0.004	ND<0.001	ND<0.05	0.01	0.01
1/82	ND<0.005	ND<0.5	ND<0.01	ND<0.02	1.2	ND<0.005	ND<0.001	ND<0.05	0.0065	ND<0.02
6/4/82	0.029	ND<0.5	ND<0.01	ND<0.02	1.3	ND<0.005	ND<0.001	0.05	ND<0.01	ND<0.02
9/17/82	ND<0.005	ND<0.5	ND<0.01	ND<0.02	1.2	ND<0.005	ND<0.002	ND<0.05	ND<0.005	ND<0.02

Parameter Units Sample Type	Endrin mg/l Grab	Lindane mg/l Grab	Methoxychlor mg/l Grab	Toxaphene mg/l Grab	2,4-D mg/l Grab	2,4,5-TP Silvex mg/l Grab	Radium pCi/l Grab	Gross Alpha pCi/l Grab	Gross Beta pCi/l Grab	Coliform Bacteria MPN Grab
Date										
9/15/81	ND<0.0002	ND<0.002	ND<0.005	ND<0.005	0.01	0.005	ND	ND<2	4±2	33
2/11/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.002	ND<0.0018	ND<0.0009	ND	1±10	3±8	<2
6/4/82	ND<0.0002	ND<0.0002	ND<0.002	ND<0.005	ND<0.001	ND<0.0005	<5	<2	29±3	<2
9/17/82	ND<0.0002	ND<0.0002	ND<0.001	ND<0.005	ND<0.001	ND<0.0005	<5	<2	3±2	<2

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

H. S. Yuan
Prepared By

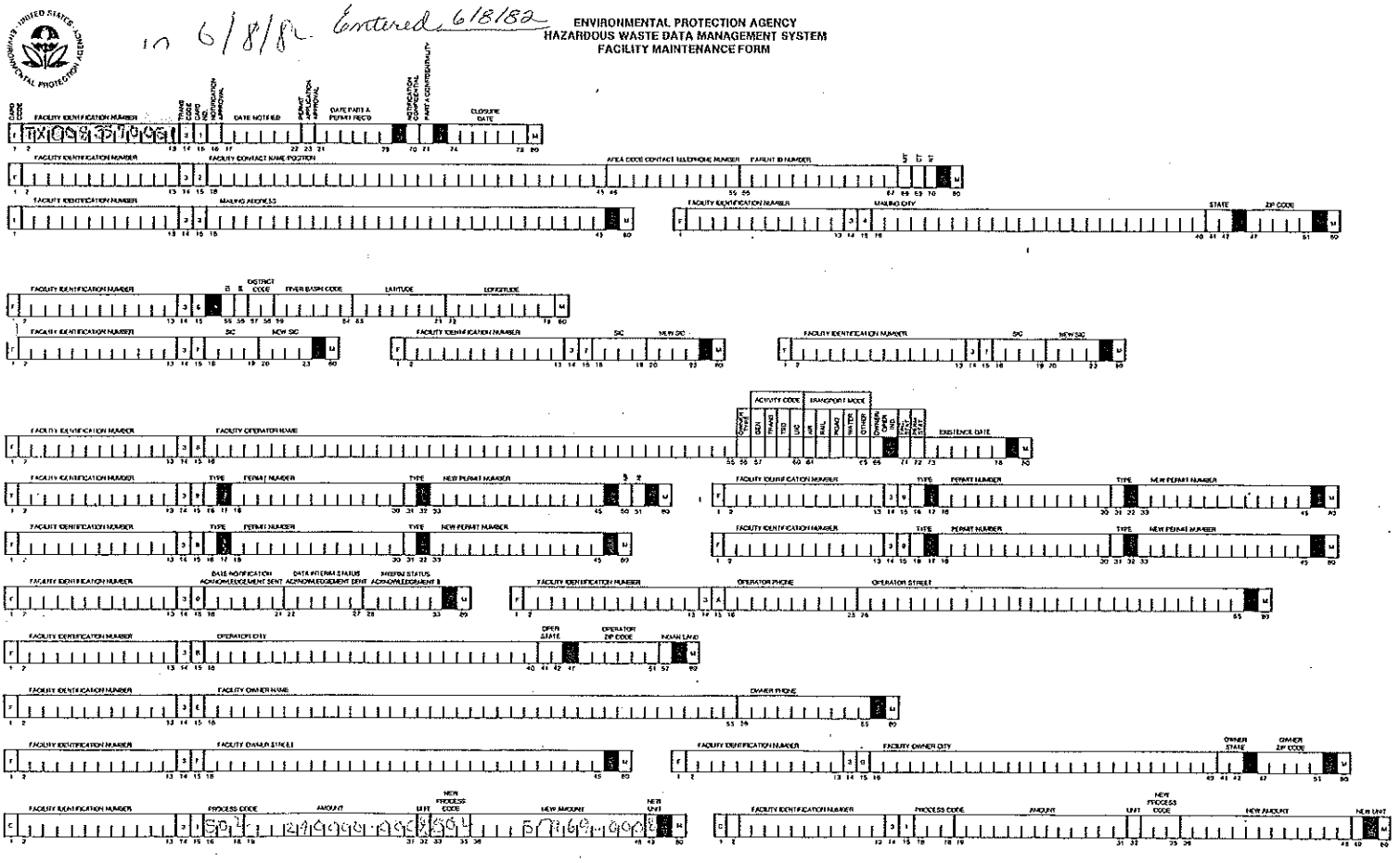
C A Thompson
Signature of Authorized Agent

11/17/82
Date

DWR-0910

in 6/8/82. Entered 6/18/82

ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS WASTE DATA MANAGEMENT SYSTEM
FACILITY MAINTENANCE FORM



CARD FIELD COLUMN 55 DRAWING INDICATOR
CARD FIELD COLUMN 56 PHOTOGRAPH INDICATOR
CARD FIELD COLUMN 57 SIC INDICATOR
CARD FIELD COLUMN 58 NATURE OF BUSINESS
CARD FIELD COLUMN 62 RCRA MODIFY CONSTRUCT
CARD FIELD COLUMN 63 RCRA COMMERCIAL
CARD FIELD COLUMN 70 RCRA NOT REGULATED

Entered 6/8/82 in 6/8/82 NEW WASTE

CARD CODING FORM

PROGRAM	RCRA -- Waste Maintenance Form PROCESSES	PROGRAMMER	DATE

Card	EPA ID Number	Tran	No.		SEQ No.	Waste Code	Proc.	Change Proc.	New Waste		
W	TXD083570051		2			P003			√		M
W			2			D007			√		M
W			2			F003			√		M
W			2			F005			√		M
W			2								M
W			2								M
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FMC Corporation

Specialty Chemicals Division
12000 Bay Area Boulevard
Pasadena Texas 77507
(713) 474 4171

February 18, 1982

FMC

Certified Mail
No. 281913

EPA Region VI
Attention: 6 AEP
1201 Elm Street
First International Building
Dallas, Texas 75270

Subject: Revised Hazardous Waste Permit Application

Gentlemen:

As part of the continuing FMC environmental review process, we have reevaluated our hazardous waste program and applications for our Bayport, Texas facility. We have reviewed both state and federal laws and compared our 1980 applications. Additionally, the State of Texas requested that we coorelate the existing TDWR waste code numbers with EPA hazardous waste numbers.

As we compared our 1980 applications, we noted that there were a number of inconsistencies between the state and federal applications. This was partially because of discrepancies between the regulations, and partially because of the minimal time available to prepare the applications for all FMC domestic operations. We have subsequently conducted additional analysis of all the previous identified wastes and having found some to be non-hazardous per EPA charateristic tests are now providing you with a revised application that reflects the results of the test work.

Attached you will find our revised application and a description of the changes and their justification. We wish to emphasize that there have been no process changes at the facility since the submittal of our hazardous waste application in 1980.

Also attached to this submittal you will find a copy of the first set of data required to be collected for surface impoundments under RCRA. As is shown in the results, all drinking water parameters were below the suggested criteria levels. In the case of mercury and fecal coliform, please note a re-sample was taken, as we believe the initial sample to be contaminated, and the second set of samples showed analysis under the drinking water criteria.

SEE TECH FILE

Very truly yours,

Dominick J. Covone

D. J. Covone
Resident Manager

(fill—in areas are spaced for elite type, i.e., 12 characters/inch). TXD 083 57 005 Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F TXD 008 357 005

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, a it in the designated space. Review the info ation carefully; if any of it is incorrect, c through it and enter the correct data in appropriate fill—in area below. Also, if an the preprinted data is absent *(the area to left of the label space lists the informa that should appear)*, please provide it in proper fill—in area(s) below. If the labe complete and correct, you need not comp Items I, III, V, and VI *(except VI-B wh must be completed regardless)*. Complete Items if no label has been provided. Refe the instructions for detailed item desc tions and for the legal authorizations un which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to an questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third colum if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: FMC CORPORATION SPECIALTY CHEMICALS DIV

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 COVONE DOMINICK J PLANT MGR.	713 474 4171

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 12000 BAY AREA BOULEVARD

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 PASADENA	TX	77507

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 12000 BAY AREA BOULEVARD

B. COUNTY NAME

HARRIS

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 PASADENA	TX	77507	

RECEIVED FEB 22 1982

EPA Form 3510-1 (6-80)

CONTINUE ON REVERS

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
2869 (specify) Organic chemical (N.E.C.)	2819 (specify) Inorganic chemicals (N.E.C.)

C. THIRD	D. FOURTH
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: FMC CORPORATION SPECIALTY CHEMICALS DIV.

B. Is the name listed in Item VIII-A also owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL, S = STATE, P = PRIVATE, M = PUBLIC (other than federal or state), O = OTHER (specify)
P (specify)

D. PHONE (area code & no.): A 713 474 4171

E. STREET OR P.O. BOX: 12000 BAY AREA BOULEVARD

F. CITY OR TOWN: PASADENA

G. STATE: TX

H. ZIP CODE: 77507

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
9 N	9 P

B. UIC (Underground Injection of Fluids)	E. OTHER (specify)
9 U	9 C 6532 (specify) TACB

C. RCRA (Hazardous Wastes)	E. OTHER (specify)
J R TXD008357005	9 30614 (specify) TDWR Registration

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Manufacture of hydrogen peroxide and several organic compounds including allyl alcohol, glycerine, acetic acid, and epoxidized soybean oil.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
D. J. Covone, Resident Manager	Dominick J Covone	2/18/82

COMMENTS FOR OFFICIAL USE ONLY

C

(fill-in areas are spaced for elite type, i.e., 12 characters/inch). Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER: F T X 0 0 8 3 5 7 0 0 5 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

[ ] 2. NEW FACILITY *(Complete item below.)*

YR. 68 MO. 12 DAY 09 — FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

YR. __ MO. __ DAY __ — FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[X] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	[illegible]
HECTARE-METER	[illegible]
ACRES	[illegible]
HECTARES	[illegible]

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C DUP 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	S 0 2	57969	G	
2	T 0 3	5.75	D	
3	S 0 1	52360	G	
4	S 0 4	540000	G	
5				
6				
7				
8				
9				
10				

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item I. to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(If a code is not entered in D(1))*
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				*Included with above*

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS W... TES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. *(enter from page 1)*

													T/A	C
F	T	X	D	0	8	3	5	7	0	0	5	1		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground--level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
29 37 03 0	095 02 03 0

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code &*
C E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F	C G		

IX. OWNER CERTIFICATION

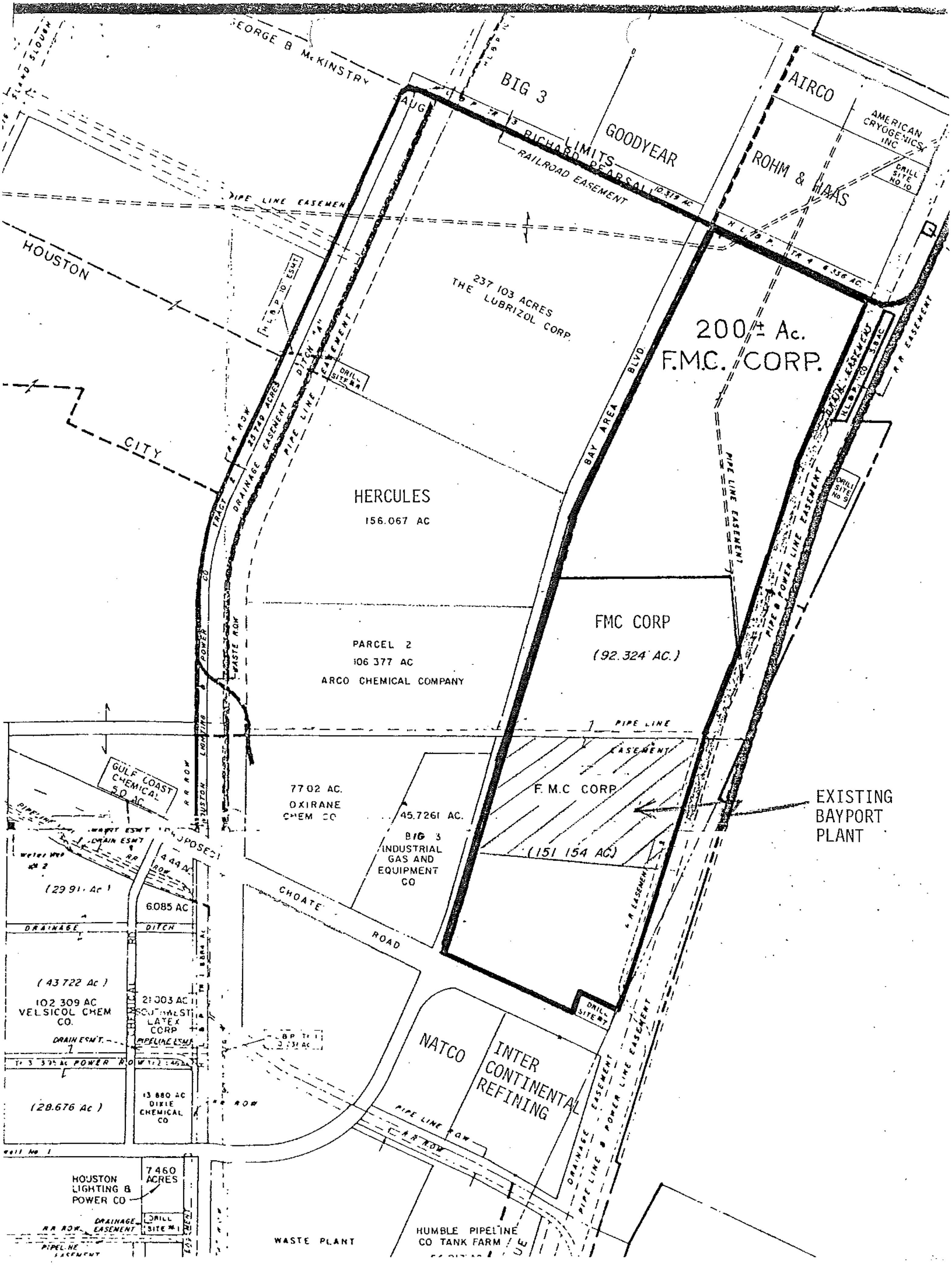
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
D. J. Covone	Dominick J Covone	2/18/82

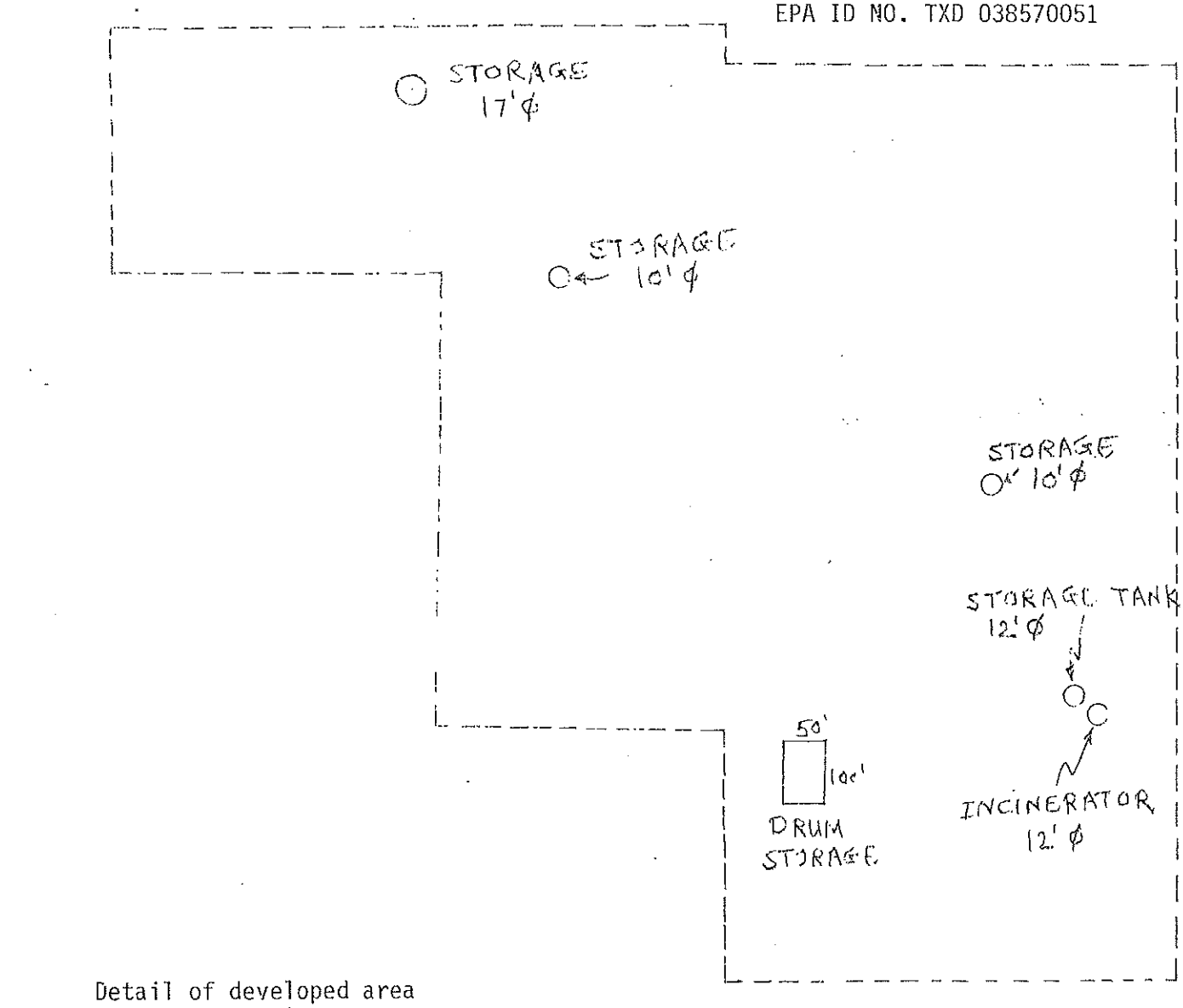
X. OPERATOR CERTIFICATION

certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached ...ocuments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

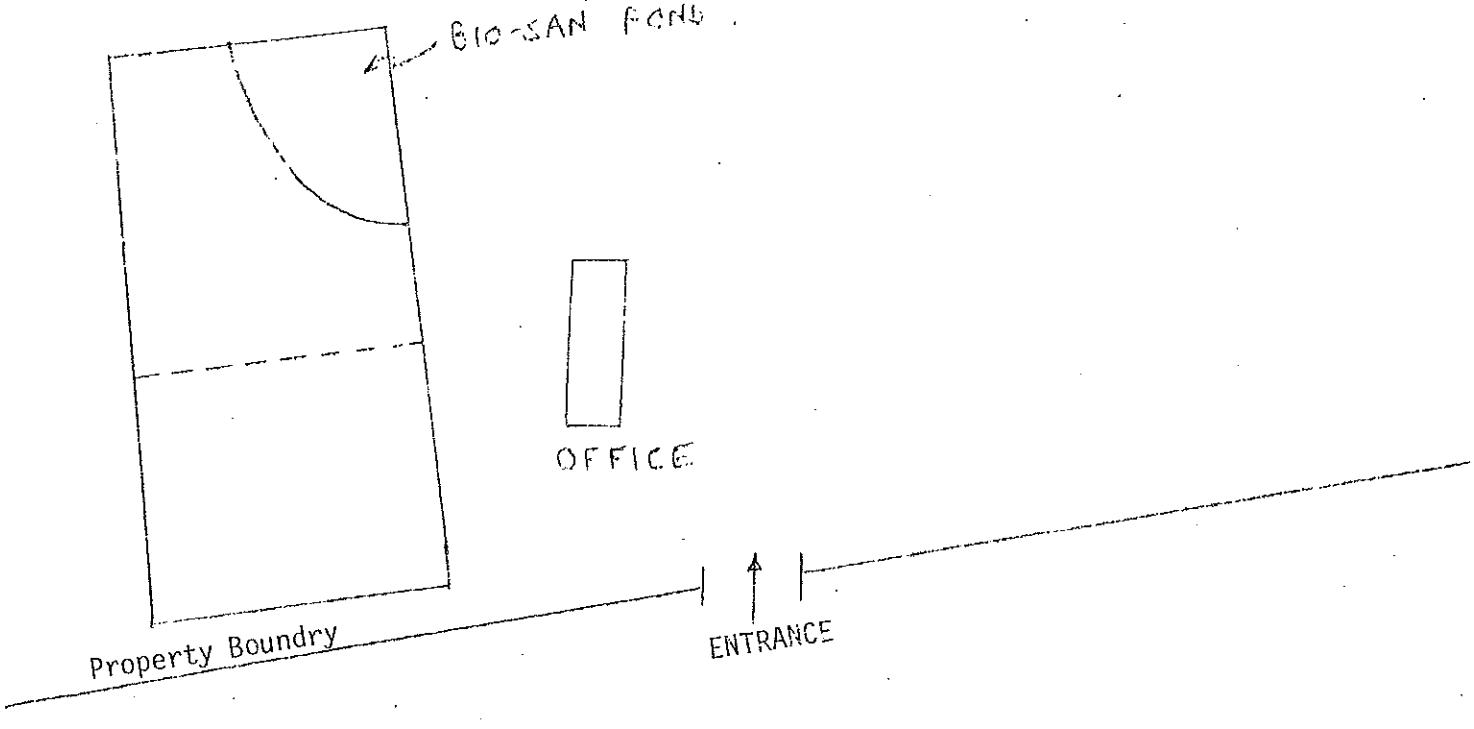
A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED


GEORGE B McKINSTRY
BIG 3
AIRCO
AMERICAN CRYOGENICS INC
GOODYEAR
ROHM & HAAS
LIMITS
RICHARD PEARSALL
RAILROAD EASEMENT
DRILL SITE NO 10
PIPE LINE EASEMENT
HOUSTON
CITY
237 103 ACRES
THE LUBRIZOL CORP.
200± Ac.
F.M.C. CORP.
BAY AREA BLVD.
DRAINAGE EASEMENT
PIPE LINE EASEMENT
DITCH "A"
R R ROW
HERCULES
156.067 AC
DRILL SITE NO 9
PIPE & POWER LINE EASEMENT
FMC CORP
(92.324 AC.)
PARCEL 2
106 377 AC
ARCO CHEMICAL COMPANY
POWER
WASTE ROW
PIPE LINE
EASEMENT
GULF COAST CHEMICAL 5.0 AC
77.02 AC.
OXIRANE CHEM CO
45.7261 AC.
BIG 3
INDUSTRIAL GAS AND EQUIPMENT CO
F. M.C CORP
(151 154 AC)
EXISTING
BAYPORT
PLANT
PROPOSED
4 44 AC
(29.91 Ac)
6.085 AC
DRAINAGE
DITCH
CHOATE
ROAD
R R EASEMENT
(43 722 Ac)
102 309 AC
VELSICOL CHEM CO.
21 003 AC
SOUTHWEST LATEX CORP
DRAIN ESM'T.
PIPELINE ESMT
POWER ROW
DRILL SITE
NATCO
INTER CONTINENTAL REFINING
DRAINAGE EASEMENT
PIPE LINE & POWER LINE EASEMENT
(28.676 Ac)
13 880 AC
DIXIE CHEMICAL CO
PIPE LINE ROW
R R ROW
HOUSTON LIGHTING & POWER CO
7 460 ACRES
DRAINAGE EASEMENT
DRILL SITE #1
PIPELINE EASEMENT
WASTE PLANT
HUMBLE PIPELINE CO TANK FARM

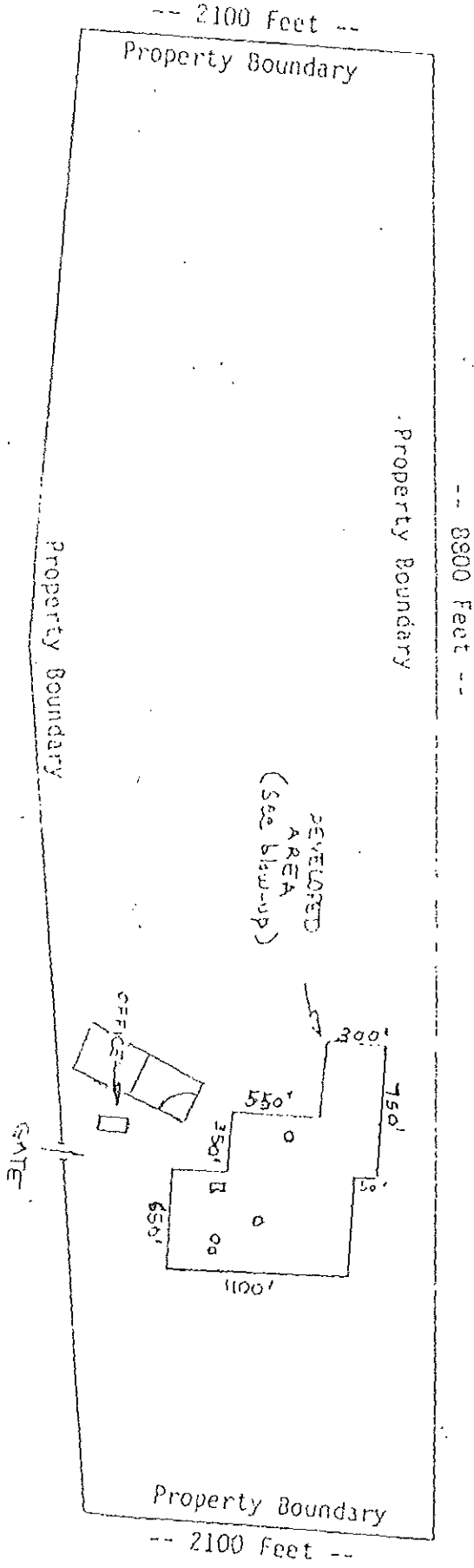
EPA ID NO. TXD 038570051



Detail of developed area
Key: 1" = 200'



PA ID NO. TXD 083570051



CILITY DRAWING
FMC BAYPORT

Key
= 1000 Feet

Treatment and
Storage Facilities

COVER LETTER 02/18/82

Changes Made 3-11-82

CHANGES TO FEDERAL APPLICATION

(line numbers refer to the 1980 submittal)

Page 1 of 5

1. Line 1 - Volume reduction. This reduction is based on two factors. We have reexamined our in-plant storage tanks and their associated volumes. Additionally, some storage volume previously accounted for is no longer applicable because the material stored is and was not a hazardous waste.

2. Line 5 - Surface impoundment has been eliminated because it does not contain any hazardous waste. Impoundment previously listed because it contained blowdown from a cooling tower that used chromate for slime control. The chromate treatment has been discontinued. Bottom sludge and water were analyzed and found not to be EP toxic. Therefore, the pond and the cooling tower blowdown have been eliminated from this application.

Page 3 of 5

1. Line 1 - Material is unchanged. Review indicated the wrong quantity had been reported previously.

2. Lines 2-8 - Material unchanged. Previous identification now seems inaccurate. Material was tested and found to be ignitable (D001) under EPA criteria. This stream is incinerated in our on-site liquid incinerator.

3. Line 9 - Material is found on Line 3 of revised form. No change has been made.

4. Lines 10-11 - Material was tested and found not to be a hazardous waste by any EPA criteria. Material is spent alumina from hydrogen peroxide unit.

5. Lines 12-14 - Material was tested and found not to be hazardous by any EPA criteria. Previously identified by codes applicable to components of mixture; all components were found in trace or low levels.

6. Lines 15-16 - Material was tested and found not to be hazardous by any EPA criteria. Material is wastewater that contains a trace (less than 1 percent) of the commercial products previously identified.

7. Line 17 - Material was tested and found not to be hazardous by any EPA criteria. Material is spent activated carbon from the hydrogen peroxide and glycerine units.

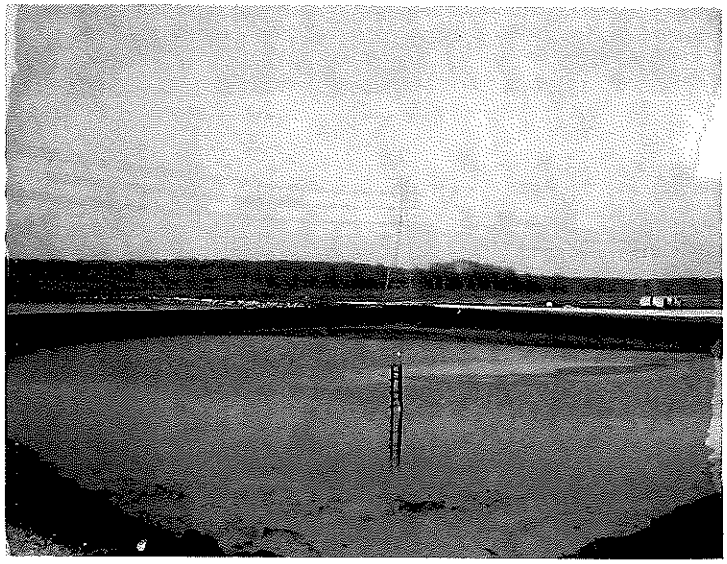
8. Lines 18-20 - Material was tested and found to be ignitable. We feel this is a more accurate representation than the previous designation. Material is found on Line 4 of the revised form.

9. Line 21 - This material has been reported on Line 5 of the revised form. It is unchanged from the original submittal.

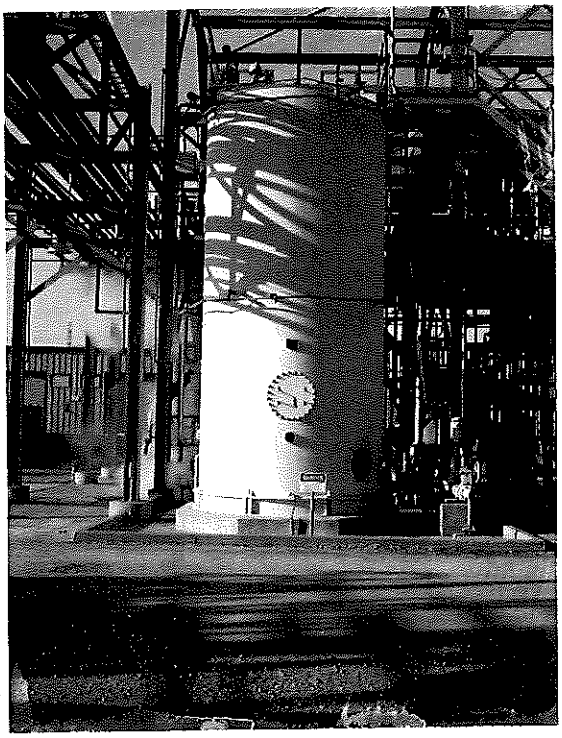
10. Line 22 - This has been eliminated from the revised submittal. The designation referred to the cooling tower blowdown that had been presumed to be EP toxic (D007). Subsequent testing and a change in slimicide have eliminated this waste stream.

11. Line 6 of the revised application designates the combined wastewater stream that is piped to the Gulf Coast Waste Disposal Authority regional treatment plant for treatment. This stream contains the material found in Line 5 of the revised form. Although testing has shown it is not hazardous under any EPA criteria, it contains the same designation as Line 5.

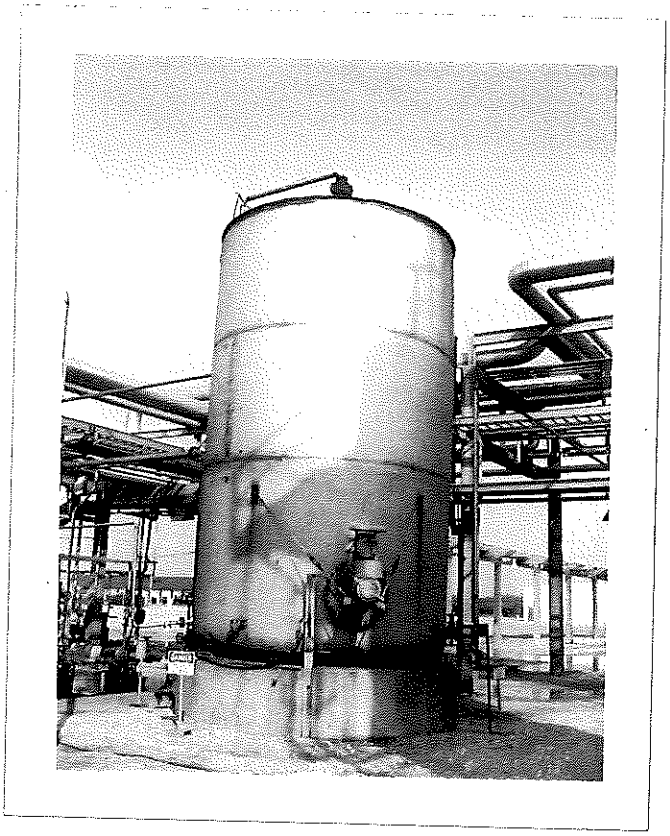
r45B4
md62



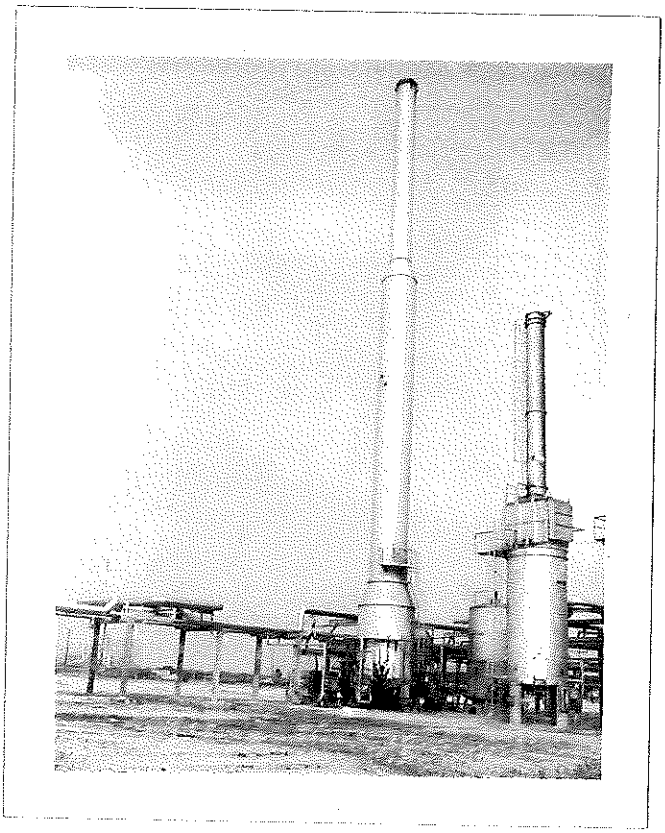
SURFACE IMPOUNDMENT (BIO-SAN POND)



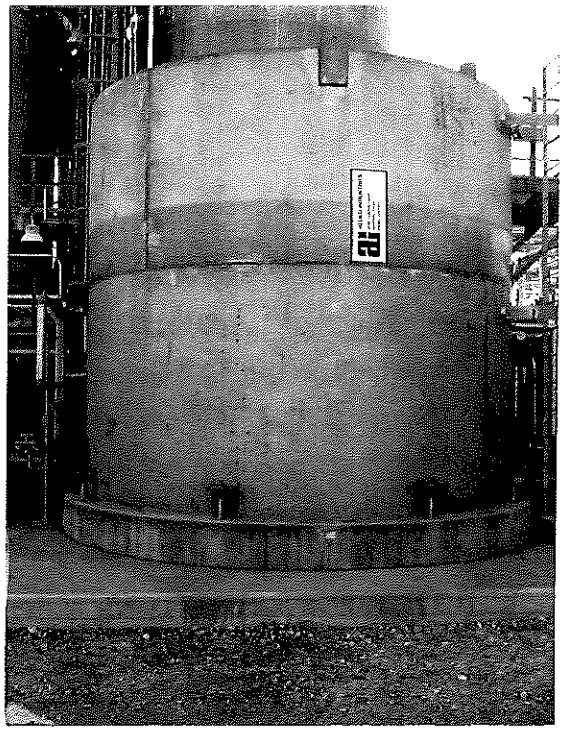
T-6428 (SPENT CAUSTIC STORAGE TANK)



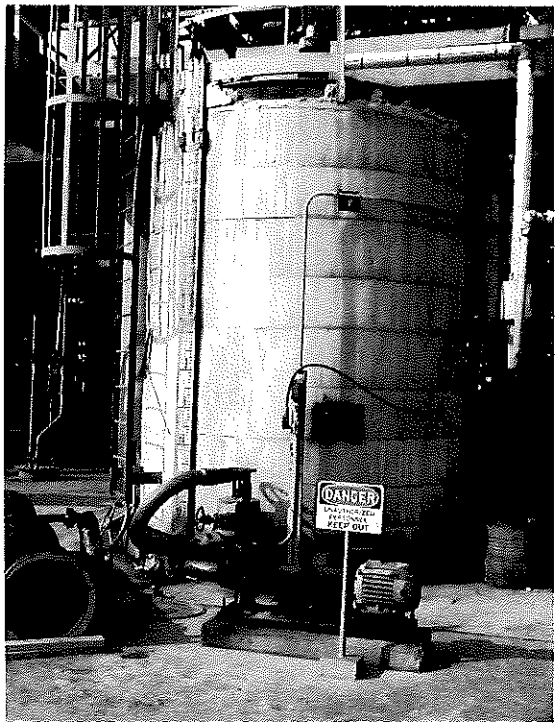
INCINERATOR FEED TANK



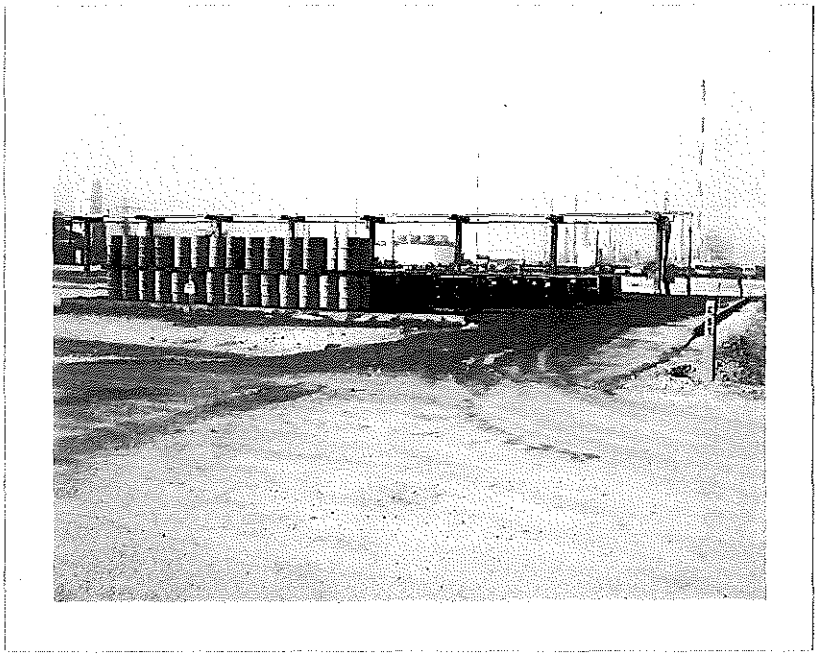
INCINERATOR



T-9304 (RECOVERED PURGE STORAGE TANK)



GLYCERINE STILL BOTTOMS STORAGE TANK



DRUM STORAGE AREA

FORCE

C - 1.0 HRS.

ATTACHMENT III

LOSS OF INTERIM STATUS
REGION VI EPA
R06-01-06

1. Reviewer: DGS

2. Facility name: EMC Corporation

3. Address/location: 12000 Bay Area Blvd.
Pasadena, TX. 77507

4. EPA I.D. No.: TXD083570051

5. Type of RCRA units requiring certification:

A.* SI - "Bio-San Pond" H.

B. I.

C. J.

D. K.

E. L.

F. M.

G. N.

*see 22

	Yes	No	Not Determined
6. Is groundwater certification required? If yes, continue to Question 7. If no, go to Question 22.	☐	☑	☐
7. Is financial assurance certification required? If yes, continue to Question 8. If no, go to Question 22.	☐	☑	☐

	Yes	No	Not Determined
8. Was groundwater certification submitted? If yes, continue to Question 9. If no, answer Questions 9, 10, 11, and 12, and go to Question 20.	☐	☐	☐
9. Was financial assurance certification submitted? If yes, continue to Question 10. If no, answer Questions 10, 11, and 12 and go to Question 20.	☐	☐	☐
10. Is signature adequate? If yes, continue to Question 11. If no, answer Questions 11 and 12 and go to Question 22.	☐	☐	☐

11. Documentation available?

a.	Part A Submittal - Date:	7-10-83 / 11-19-80	☑	☐	☐
b.	Part B Submittal - Date:	_____	☐	☐	☐
c.	Topographic Map -		☐	☐	☐
d.	Section 3007 Response - Date:	11-18-85	☑	☐	☐
e.	Closure Plan - Date:	_____	☐	☐	☐
f.	Post-Closure Plan- Date:	_____	☐	☐	☐
g.	RCRA Inspection - Date:	_____	☐	☐	☐
h.	Other -	Signed / Received			
	i. Certification Date:	_____ / _____			
	ii. _____ Date:	_____			
	iii. _____ Date:	_____			
	iv. _____ Date:	_____			
	v. _____ Date:	_____			

12. Do all documents listed in Question 11 agree with the information shown in Question 5? If yes, continue to Question 13. If no, go to Question 22 and check with Project Manager before continuing with questionnaire.	☐	☐	☐
13. Does groundwater certification properly address all units listed in Question 5? If yes, continue to Question 14. If no, go to Question 22.	☐	☐	☐

	Yes	No	Not Determined
14. Does financial assurance certification (insurance and closure/post-closure) properly address all units listed in Question 5? If yes, continue to Question 15. If no, go to Question 22.	☐	☐	☐
15. Does insurance address both sudden and non-sudden occurrences? If yes, continue to Question 16. If no, go to Question 22.	☐	☐	☐

16. Which of the following options were used to demonstrate financial assurance for closure? Note: check yes for the appropriate method - it is not necessary to check No for those which do not apply.

Closure Cost _____ Insurance Part B _____ Available _____

a. Closure trust fund:	☐	☐	☐
b. Surety bond guaranteeing payment into a closure trust fund:	☐	☐	☐
c. Surety bond guaranteeing performance:	☐	☐	☐
d. Closure letter of credit:	☐	☐	☐
e. Closure insurance:	☐	☐	☐
f. Financial test/corporate guarantee:	☐	☐	☐
g. Multiple financial mechanisms:	☐	☐	☐

17. Which of the following options were used to demonstrate financial assurance for post-closure? Note: Check yes for the appropriate method - it is not necessary to check no for those which do not apply.

Post Closure Cost _____ Insurance Part B _____ Available _____

	Yes	No	Not Determined
a. Post-closure trust fund:	☐	☐	☐
b. Surety bond guaranteeing payment into a post-closure trust fund:	☐	☐	☐
c. Surety bond guaranteeing performance:	☐	☐	☐
d. Post-closure letter of credit:	☐	☐	☐
e. Insurance:	☐	☐	☐
f. Financial test/corporate guarantee:	☐	☐	☐
g. Multiple financial mechanisms:	☐	☐	☐
18. Is GROUNDWATER certification considered complete? If no, explain in Question 22.	☐	☐	☐
19. Is financial assurance considered complete? If no, explain in Question 22.	☐	☐	☐
20. If the answer to Questions 8, 9, 18, or 19 is no, was a closure plan submitted? If yes, continue to Question 21. If no, go to Question 22.	☐	☐	☐
21. If the answer to Questions 8, 9, 18, or 19 is no, was a post-closure plan submitted?	☐	☐	☐

22. Briefly discuss the problems or discrepancies identified and determine if they are of a nature which prevents further review.

• UNIT WAS CLEAN CLOSED MAY 1984. CLOSURE CERTIFICATION SUBMITTED TO TDWR JULY 1984. (TDWR INSPECTION OF CLOSED UNIT - MAY 29-30, 1984)

Do not make entries in shaded areas

ENVIRONMENTAL PROTECTION AGENCY

Generator Biennial Hazardous Waste Report for 1985 (cont.)

This report is for the calendar year ending December 31, 1985

GENERATOR'S NAME: FMC Corporation, Bayport, Texas Plant

Date rec'd: _____ Rec'd by: _____

XV. GENERATOR'S EPA I.D. NO.

T A C														
G	T	X	D	0	8	3	5	7	0	0	5	1		1
1	2											13	14	15

XVI. WASTE MINIMIZATION (narrative description)

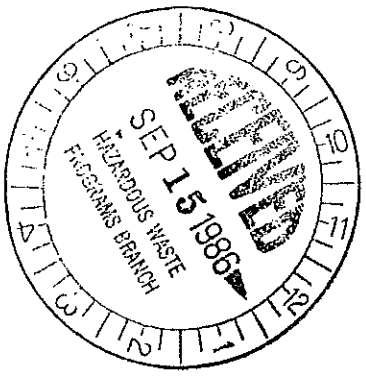
In accordance with FMC's corporate policy and corporate program, Bayport plant has a program in place to reduce the volume and toxicity of hazardous waste generated at the facility. For 1985, implementation of this program at the facility consisted of the following:

a. Identification of the amount, nature and source of hazardous waste generated at the facility.

b. Exploration of means of reduction, including alternative production means and/or use of alternative materials.

c. Burning non-halogenated organic waste via the Hot Oil Furnace (an industrial boiler) as fuel for energy recovery.

d. Termination of using landfill disposal of "Spill Clean Up-Miscellaneous Organics" waste. This waste has been disposed/treated via an off-site incinerator to reduce its toxicity since July, 1985.



Tear out here

Appendix—Form—Notification of Hazardous Waste Activity

EPA Form 8700-12 (Revised 11/85)

Please print or type with ELITE type *(12 characters per inch)* in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 9-30-88. GSA No. 0246-EPA-OT

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

For Official Use Only

Comments NS6.5.86

Installation's EPA ID Number	Approved	Date Received (yr. mo. day)
C F	T/A C 1	

I. Name of Installation

C 2: FMC CORPORATION

II. Installation Mailing Address

Street or P.O. Box

C 3: 12000 BAY AREA BOULEVARD

City or Town	State	ZIP Code
C 4: PASADENA	TX	77507

III. Location of Installation

Street or Route Number

C 5: 12000 BAY AREA BOULEVARD

City or Town	State	ZIP Code
C 6: PASADENA	TX	77507

IV. Installation Contact

Name and Title *(last, first, and job title)*	Phone Number *(area code and number)*
C 2: THREDER C RES MGR	7134744171

V. Ownership

A. Name of Installation's Legal Owner	B. Type of Ownership *(enter code)*
C R: FMC CORPORATION	P

VI. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

A. Hazardous Waste Activity

- [X] 1a. Generator
- [ ] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [X] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [X] 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [X] c. Burner

B. Used Oil Fuel Activities

- [ ] 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer (Or On-Site Burner) Who First Claims the Oil Meets the Specification.

VII. Waste Fuel Burning: Type of Combustion Device *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

[ ] A. Utility Boiler [X] B. Industrial Boiler [ ] C. Industrial Furnace

VIII. Mode of Transportation *(transporters only — enter 'X' in the appropriate box(es))*

[ ] A. Air [ ] B. Rail [ ] C. Highway [ ] D. Water [ ] E. Other *(specify)*

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

[ ] A. First Notification [X] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number: TXD083570051

EPA Form 8700-12 (Rev. 11-85) Previous edition is obsolete.

Continue on reverse

ID — For Official Use Only

C W | T/A | C 1

IX. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F 0 0 3					
7	**8**	**9**	**10**	**11**	**12**

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	**38**	**39**	**40**	**41**	**42**
43	**44**	**45**	**46**	**47**	**48**

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40* CFR *Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [ ] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [ ] 4. Toxic *(D000)*

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
Roger C. Threde	R. C. Threde - Resident Manager	3/19/86

EPA Form 8700-12 (Rev. 11-85) Reverse

[Editor's note]

2/21/86 LOIS

File I A6 C-1.0 HRS. 5

ATTACHMENT III

LOSS OF INTERIM STATUS
REGION VI EPA
R06-01-06

1. Reviewer: DGS

2. Facility name: FMC Corporation

3. Address/location: 12000 Bay Area Blvd.
Pasadena, TX. 77507

4. EPA I.D. No.: TXD083570051

5. Type of RCRA units requiring certification:

A.* SI - "Bio-San Pond" H. _____

B. _____ I. _____

C. _____ J. _____

D. _____ K. _____

E. _____ L. _____

F. _____ M. _____

G. _____ N. _____

*see 22

	Yes	No	Not Determined
6. Is groundwater certification required? If yes, continue to Question 7. If no, go to Question 22.	☐	☑	☐
7. Is financial assurance certification required? If yes, continue to Question 8. If no, go to Question 22.	☐	☑	☐

	Yes	No	Not Determined
8. Was groundwater certification submitted? If yes, continue to Question 9. If no, answer Questions 9, 10, 11, and 12, and go to Question 20.	☐	☐	☐
9. Was financial assurance certification submitted? If yes, continue to Question 10. If no, answer Questions 10, 11, and 12 and go to Question 20.	☐	☐	☐
10. Is signature adequate? If yes, continue to Question 11. If no, answer Questions 11 and 12 and go to Question 22.	☐	☐	☐

11. Documentation available?

a.	Part A Submittal - Date:	1-10-83 / 11-19-80	☑	☐	☐
b.	Part B Submittal - Date:		☐	☐	☐
c.	Topographic Map -		☐	☐	☐
d.	Section 3007 Response - Date:	11-18-85	☑	☐	☐
e.	Closure Plan - Date:		☐	☐	☐
f.	Post-Closure Plan- Date:		☐	☐	☐
g.	RCRA Inspection - Date:		☐	☐	☐
h.	Other -	Signed	Received		
	i. Certification Date:				
	ii. _____ Date:				
	iii. _____ Date:				
	iv. _____ Date:				
	v. _____ Date:				

12. Do all documents listed in Question 11 agree with the information shown in Question 5? If yes, continue to Question 13. If no, go to Question 22 and check with Project Manager before continuing with questionnaire.	☐	☐	☐
13. Does groundwater certification properly address all units listed in Question 5? If yes, continue to Question 14. If no, go to Question 22.	☐	☐	☐

	Yes	No	Not Determined
14. Does financial assurance certification (insurance and closure/post-closure) properly address all units listed in Question 5? If yes, continue to Question 15. If no, go to Question 22.	☐	☐	☐
15. Does insurance address both sudden and non-sudden occurrences? If yes, continue to Question 16. If no, go to Question 22.	☐	☐	☐

16. Which of the following options were used to demonstrate financial assurance for closure? Note: check yes for the appropriate method - it is not necessary to check No for those which do not apply.

	Closure Cost	Insurance Part B	Available
a. Closure trust fund:	☐	☐	☐
b. Surety bond guaranteeing payment into a closure trust fund:	☐	☐	☐
c. Surety bond guaranteeing performance:	☐	☐	☐
d. Closure letter of credit:	☐	☐	☐
e. Closure insurance:	☐	☐	☐
f. Financial test/corporate guarantee:	☐	☐	☐
g. Multiple financial mechanisms:	☐	☐	☐

17. Which of the following options were used to demonstrate financial assurance for post-closure? Note: Check yes for the appropriate method - it is not necessary to check no for those which do not apply.

	Post Closure Cost	Insurance Part B	Available

	Yes	No	Not Determined
a. Post-closure trust fund:	☐	☐	☐
b. Surety bond guaranteeing payment into a post-closure trust fund:	☐	☐	☐
c. Surety bond guaranteeing performance:	☐	☐	☐
d. Post-closure letter of credit:	☐	☐	☐
e. Insurance:	☐	☐	☐
f. Financial test/corporate guarantee:	☐	☐	☐
g. Multiple financial mechanisms:	☐	☐	☐
18. Is GROUNDWATER certification considered complete? If no, explain in Question 22.	☐	☐	☐
19. Is financial assurance considered complete? If no, explain in Question 22.	☐	☐	☐
20. If the answer to Questions 8, 9, 18, or 19 is no, was a closure plan submitted? If yes, continue to Question 21. If no, go to Question 22.	☐	☐	☐
21. If the answer to Questions 8, 9, 18, or 19 is no, was a post-closure plan submitted?	☐	☐	☐

22. Briefly discuss the problems or discrepancies identified and determine if they are of a nature which prevents further review.

• UNIT WAS CLEAN CLOSED MAY 1984. CLOSURE CERTIFICATION SUBMITTED TO TDWR JULY 1984. (TDWR INSPECTION OF CLOSED UNIT - MAY 29-30, 1984)

I. Size and Location of Facility

A. The FMC Peroxygen Chemicals Division waste management facility is located on a 427-acre tract of land that fronts on the east side of Bay Area Boulevard, approximately 1.8 miles south of the intersection of Fairmont Parkway and Bay Area Boulevard in Pasadena, Harris County, Texas. The site is in Segment Number 1113 of the San Jacinto-Brazos Coastal Basin (North Latitude 29°37'30" West Longitude 95°02'30").

B. The area on which waste management activities governed by this permit are located is described by the attached legal descriptions (Attachment A).

II. Units and Operations Authorized

A. Wastes Authorized:

1. The permittee is authorized to manage industrial solid wastes listed in the application and described herein, subject to the limitations provided herein.

Wastes are limited to those generated at this facility.

2. Hazardous wastes authorized to be managed under this permit are limited as follows:

a. Hazard Code Groups (as prescribed by the U.S. Environmental Protection Agency regulations in effect upon the date of permit approval):

__x__ Ignitable Waste (I)	_____ Acute Hazardous Waste (H)
_____ Toxic Waste (T)	_____ EP Toxic Waste (E)
_____ Corrosive Waste (C)	_____ Reactive Waste (R)

b.

Waste Descriptions	TWC Waste Class	Hazard Code
(1) Spent methanol	IH	I

B. Units Authorized:

The permittee is authorized to operate the following units for storage and incineration subject to the limitations contained herein. All waste management activities subject to permitting are to be confined to the following units:

1. Tank, stainless steel closed, maximum capacity of 38,000 gallons, identified as Spent Methanol Tank MS-211 in the application (NOR No. 06) for storage of wastes described in Provision II.A.2.b.;

[II.B.]

2. Incinerator, liquid injection-type, 20,000,000 BTU's per hour, identified as John Zink Thermal Oxidizer HF-702 in the application (NOR No. 01), for processing wastes described in Provision II.A.2.b.

C. Authorization to operate these units is contingent upon maintenance of financial assurance pursuant to Provision IV.A.1. and financial liability requirements pursuant to Provision III.B.11. Authorization to begin operation of new units is contingent upon compliance with Provisions IV.A.1. and V.U. The permittee may not store, process, or dispose of waste unless compliant with all financial assurance requirements and liability requirements, to include all related financial assurance instruments and liability coverage instruments being in full force and effect.

D. The units and operational methods authorized are limited to those described both herein and by the application and related plans and specifications which were included in the permit application submittals dated January 6, 1989. Prior to constructing or operating any unit in a manner which differs from either the related plans and specifications or the limitations of this permit, the permittee must satisfy the following requirements:

1. Notify the TWC and submit plans and specifications for the proposed modification; and

2. Receive written authorization of the Executive Director for such modification, if the Executive Director determines that a permit amendment is not required by TWC rules.

E. Any proposed unit modifications, addition of units, or expansion in capacity which has not been addressed by the terms of this permit must be authorized in accordance with TWC permit amendment rules.

III. Facility Design, Construction, and Operation

A. General Design, Construction, and Certification Requirements:

1. Facility design, construction, and operation must comply with this permit, Texas Water Commission (TWC) Rules, and be in accordance with the plans and specifications for design, construction and operation approved herein. All plans submitted with the application dated January 6, 1989 are approved, subject to the terms of this permit and any other orders of the Texas Water Commission which are hereby incorporated by reference and made a part of this permit.

[III.A.]

2. The facility shall be designed, constructed, operated, and maintained to prevent washout of any hazardous waste. At a minimum, all storm-water control structures shall be designed and constructed to prevent washout of any hazardous waste by a 100-year flood.

3. All authorized units shall be clearly identified as numbered in Provision II.B. At a minimum, the incinerator area is to have signs, and the tank is to have painted labels indicating "TWC PERMIT UNIT NO. (from Provision II.B.)," (for example, the Spent Methanol Tank MS-211 shall be labelled "TWC PERMIT UNIT NO. 1").

B. General Operational Requirements:

1. The permittee shall comply with the requirements of 40 CFR 264.17.

2. The permittee shall within 24 hours remove any spilled hazardous waste and waste residues and shall take steps necessary to prevent surface-water contamination as a result of any spills.

3. The permittee shall manage all wastes within the facility unit in a manner in which particulate emissions of waste to the air meet Texas Air Control Board and Texas Water Commission requirements.

4. All contaminated water as identified by Provisions III.B.5., IV.B.2. and IV.B.3. shall be disposed of by one of the following methods:

a. Removal to an on-site, authorized industrial solid waste unit; or

b. Removed off-site to an authorized industrial solid waste management facility.

c. Removed off-site to Gulf Coast Waste Disposal Authority or other publicly-owned treatment works, for treatment and discharge under terms and conditions of indirect discharge authorization.

5. The permittee shall ensure that any equipment which has come in contact with hazardous waste has been decontaminated prior to exiting the unit. At a minimum, all contaminated equipment shall be washed sufficiently to remove waste residues. All wash water generated shall be collected and disposed of in accordance with Provision III.B.4.

[III.B.]

6. The annual site activity report required by Provision V.F. shall be submitted to the TWC Central Office and Southeast Region Office by January 25 of each year for the preceding year's activities. This annual report shall include, at a minimum, the following information:

   a. All information and records required by 31 Texas Administrative Code (TAC) 335.154;

   b. Volume of all wastes stored at the facility unit authorized in Provision II.B.;

   c. Summary of the annual cost estimate adjustments for facility closure; and

   d. The percentage of the incinerator's total permitted capacity utilized during the report year.

7. The permittee shall ensure that all waste analyses utilized for waste identification or verification have been performed in accordance with methods specified in the current editions of "Test Methods for Chemical Analysis of Water and Wastes" or "Test Methods for the Evaluation of Solid Waste" (SW-846) or other methods which are officially approved by the EPA. The permittee shall utilize only laboratories which follow a quality control/quality assurance program conforming to the program specified in "Test Methods for the Evaluation of Solid Waste" (SW-846).

8. The permittee shall comply with inspection requirements of 40 CFR 264.15.

9. The permittee shall comply with the training requirements of 40 CFR 264.16.

10. All tanks, sumps, pumps, fire and spill control equipment, decontamination equipment, and all other equipment and structures authorized or required by this permit shall be maintained in good functional condition.

11. The permittee shall secure and maintain liability coverage in compliance with the liability requirements of, and in a form outlined in, 40 CFR Part 264, Subpart H.

12. The permittee shall comply with the security requirements of 40 CFR 264.14.

C. Tank Design, Construction, and Operation Requirements:

The permittee shall comply with the following minimum requirements for the tank authorized by Provision II.B.

[III.C.]

1. The tank shall be constructed and operated in such a way as to not depart from the standards presented in Title 40, Code of Federal Regulations Sections 264.192-264.199.

D. General Air Quality Conditions

1. This facility shall be constructed and operated in accordance with and subject to the Texas Clean Air Act (TCAA) as amended (Article 4477-5, V.A.T.S.) and all applicable Rules, Regulations and Orders of the Texas Air Control Board (TACB). Said construction and operation is subject to any additional or amended Rules, Regulations, and Orders of the TACB adopted pursuant to the TCAA.

2. All representations with regard to construction plans and operating procedures in the permit application are conditions upon which this permit is issued. The permittee shall not vary from such representations if the change will cause a change in the method of control of emissions, the character of the emissions, or will result in an increase in the discharge of any air contaminant, unless he first makes an application to the Texas Water Commission (TWC) to amend the permit and such amendment is approved pursuant to the requirements of TACB Regulation X (31 TAC Chapter 120) and 31 TAC Chapter 335, Subchapter L. The TACB Central Office in Austin shall be notified at the time of such application to the TWC.

3. Start of construction of facility units, modification of an existing facility unit, interruption of construction exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the TACB not later than ten working days after occurrence of the event.

4. The appropriate regional office of the TACB shall be notified prior to the initial start-up of new or modified facility units authorized by this permit and prior to any required monitoring or sampling in such a manner that a representative of the TACB may be present at the time of the initial start-up, monitoring, or sampling.

5. Upon request by the Executive Director of the TACB, the permittee shall conduct sufficient sampling or other tests to prove satisfactory equipment performance. All calibration, sampling and testing procedures shall be approved by the Executive Director of the TACB and coordinated with the appropriate regional office representatives of the TACB.

[III.D.]

6. If sampling is required, the permittee shall contact the Quality Assurance Division of the TACB prior to sampling to obtain the proper data forms and procedures. The permittee is responsible for providing sampling equipment and conducting sampling operations at his expense.

7. Information and data concerning the date, type and quantity of wastes managed, waste analyses, facility inspections, operating hours, sampling, and monitoring data shall be maintained in the operating record at the plant site and made available at the request of personnel from the TACB, TWC, or any local environmental pollution control program having jurisdiction. Unless otherwise specified in this permit, the operating record shall be retained for at least three years following the date that the information or data are obtained.

8. The facility units covered by this permit shall not be operated unless all associated air pollution abatement equipment is maintained in good working order and is operating properly during normal facility operations.

9. Emissions from the facility units shall not cause or contribute to a condition of "air pollution" as defined in Section 1.03 of the TCAA or violate Section 4.01 of the TCAA. If the Executive Director of the TACB determines that such a condition or violation occurs, the permittee shall implement additional abatement measures as necessary to control or prevent the condition or violation.

10. Acceptance of the permit constitutes an acknowledgement and agreement that the permittee will comply with all applicable Rules, Regulations and Orders of the TACB issued in conformity with the TCAA and the conditions precedent to the granting of this permit or any amendment to the permit. Failure to comply with all conditions of this permit or amendment will subject the permittee to the enforcement provisions of the TCAA, Article 4477-5, and the Solid Waste Disposal Act, Article 4477-7, V.A.T.S.

11. This permit covers only the sources of emissions listed in the attached table entitled, "Emission Sources - Maximum Allowable Emission Rates", submitted by the TACB which is hereby made a part of this permit as "Attachment C" and those sources are limited to the emissions and other conditions specified in that attachment.

12. A copy of this permit shall be kept at the plant site and made available at the request of personnel from the TACB, TWC, or any local environmental pollution control program having jurisdiction.

[III.D.]

13. The permittee shall construct and maintain the facility units in accordance with the plans and specifications represented in the application for this permit.

14. The permittee shall operate the facility units in compliance with all requirements of the Resource Conservation and Recovery Act and the rules promulgated thereunder as these directly or indirectly relate to air contaminant emissions.

15. The permittee shall operate the facility units in compliance with all rules and regulations of the TACB (except Regulation VI) and with the intent of the Texas Clean Air Act.

16. The permittee shall operate the facility units in compliance with the requirements of any applicable new source performance standard promulgated by the Environmental Protection Agency (EPA) pursuant to authority granted under the Federal Clean Air Act, Paragraph 111, as amended.

17. The permittee shall operate the facility units in compliance with all requirements of any applicable emissions standard for hazardous air pollutants promulgated by the EPA pursuant to authority granted under the Federal Clean Air Act, Paragraph 112, as amended.

18. Records shall be maintained on-site indicating the date, quantity, type, and composition of solid waste generated or managed at this facility. At a minimum, the definition of waste composition shall be provided in sufficient detail to identify the significant potential air contaminants. An analysis for those chemical compounds present in concentrations greater than one percent by volume of the total waste stream, which includes the concentration of the total organic carbon, shall be sufficient.

E. Incinerator Performance Standards.

The permittee shall maintain and operate the incinerator unit so that it will meet the following performance standards.

1. The unit shall not emit hydrogen chloride (HCl) in excess of 4 pounds per hour (lb/hr).

2. The unit shall not emit particulate matter in excess of 0.08 grains per dry standard cubic foot when corrected for the amount of oxygen in the stack gas in accordance with the formula specified in 40 CFR Part 264.343(c).

[III.E.]

3. Compliance with the operating conditions specified in Provisions III.F.1.-6. of this permit will be regarded as compliance with the above performance standards. However, any evidence that compliance with the operating conditions or other permit conditions is insufficient to ensure compliance with the above performance standards may be "information" justifying modification, revocation, or reissuance of the permit pursuant to 40 CFR Part 270.41.

F. Incinerator Area Operating Conditions

The permittee shall feed hazardous wastes to the incinerator unit only under the following conditions:

1. Incinerator operating instructions shall be readily available to incinerator operators.

2. The temperature of the combustion gas measured at the stack shall be maintained at not less than 1400°F.

3. The maximum volumetric flow rate through the system shall not exceed 80,000 actual cubic feet per minute (acfm) at 1400°F and 14.7 psia as measured at the stack.

4. The combustion gas concentration of carbon monoxide (CO) measured at the stack shall not exceed 100 ppm(v) dry basis, on a sixty-minute average.

5. Fugitive emissions from the combustion zone shall be controlled by keeping the combustion zone totally sealed against fugitive emissions. Compliance with this provision may be determined when no visible emissions escape to the atmosphere from any opening on the exterior of the combustion zone areas.

6. The permittee shall maintain and operate an automatic waste feed cut off system which shall activate under the conditions specified in Attachment D.

G. Limitations on Wastes Incinerated

1. Only spent methanol waste may be burned in the incinerator.

2. The total organically-bound chloride content of the total waste feed shall not exceed 4.0 lb/hr.

3. The hazardous waste feeds to the incinerator shall not contain greater than 100 ppm of organic hazardous constituents listed in 40 CFR Part 261, Appendix VIII, except naphthalene which may be present in concentrations up to 200 ppm.

[III.G.]

4. The total average heat value of the waste material and natural gas fired in the incinerator shall not be less than 7,236 BTU/lb of waste material fed to the unit.

5. The feed rate of total wastes to the incinerator shall not exceed 2,764 lb/hr.

6. The total ash content of the waste shall not exceed 0.1 percent by weight.

7. The combined heat of combustion and heat content of all streams fed to the incinerator system shall not exceed 20 million BTU/hr at any time.

8. Auxiliary fuel shall be either sweet natural gas containing not more than 1.5 grains of hydrogen sulfide per 100 cubic feet and not more than 30 grains of total sulfur per 100 cubic feet, liquified petroleum gas, diesel oil, or No. 2 fuel oil. All diesel oil or No. 2 fuel oil shall be first run refinery grade and shall not consist of a blend containing waste oils or solvents. Use of any other auxiliary fuel will require prior approval of the Executive Director of the Texas Air Control Board. The permittee shall determine the lower heating value and total sulfur content of any auxiliary fuel used in the incinerator.

H. Other Incinerator Area Monitoring, Testing and Inspection Requirements

1. Combustion temperature, total waste feed rate, auxiliary fuel flow rate, and CO concentration shall be monitored and recorded on a continuous basis.

2. Carbon monoxide concentrations shall be measured with a continuous emission monitor (CEM). The CEM shall be certified by meeting the design and performance specifications, pass the field tests and meet the installation requirements, data analysis, and reporting requirements specified in the applicable Performance Specifications 40 CFR Part 60, Appendix B. In certifying the instrument, the permittee shall use appropriate reference methods and relative accuracy testing procedures specified in 40 CFR Part 60, Appendices A and B. If the CO monitor uses non-dispersive infrared (NDIR) analysis, a relative accuracy determination procedure shall be run using Reference Method 10A as found in 40 CFR Part 60, Appendix A. The carbon monoxide concentration shall be quantified as parts per million (ppm) by volume, dry basis.

3. An appropriate indicator of combustion gas volumetric flow shall be utilized to quantify the volumetric flow as actual cubic per minute (acfm).

[III.H.]

4. The CEM systems shall be zeroed and spanned daily for each monitoring range. Corrective action shall be taken when the 24-hour span drift exceeds two times the amounts specified in 40 CFR Part 60, Appendix B or as specified by the TACB if not specified in Appendix B. Each calendar quarter, monitor accuracy shall be certified using a cylinder gas audit (CGA) as described in 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2. Reference method testing can be substituted for cylinder gas audits if preferred by the permittee. Corrective action shall be taken when the CGA exceeds + 15 percent accuracy.

5. The incinerator and associated equipment must be visually inspected at least daily for leaks, spills, fugitive emissions, and signs of tampering.

6. The emergency cut off system and associated alarms that would initiate the cut off must be tested at least weekly to verify operability.

7. The permittee shall maintain an operating record of the monitoring and inspection data collected in Provision III.H.1. and as required by 40 CFR Part 264.73 and 264.347. In addition , the permittee shall also record the following events:

   a. All occasions when the operating limits specified in Provision III.F.1.-5. are exceeded; and

   b. All occasions when waste feed is cut off by the automatic waste feed cut off system, including the date and time of the incident, and, if applicable, the values of operating or waste feed parameters that triggered the cut off.

8. Opacity of emissions from any stack shall not exceed five (5) percent, except for uncombined water, other than for those periods described in Rule 111.21 of Regulation I of the TACB.

I. Incinerator Sampling Requirements

1. The permittee may conduct additional sampling and analysis of the waste and exhaust emissions and request a modification of the operating requirements of Provisions III.F.1.-6. of this permit based upon a showing that the modified requirements are adequate to meet the performance standards of 40 CFR Part 264.343 and Provisions III.E.1.-3. of this permit.

2. Throughout normal operation the permittee shall conduct sufficient waste analysis, at least annually, to verify that the waste feed to the incinerator is within the physical and chemical composition limits specified in the waste analysis plan.

[III.]

J. Additional Control Requirements

1. Facilities subject to these requirements include RCRA permitted storage tanks, loading facilities and associated sources of fugitive emissions handling hazardous wastes.

2. Filling of storage vessels shall be accomplished by submerged fill pipes or equivalent technology that will minimize emissions.

3. Any storage tank shall be equipped with a high level alarm.

4. Incinerator area tanks shall be operated such that the tank vapors are not displaced or otherwise vented directly to the atmosphere. Tank vapors may be displaced to the incinerator, or to the flare.

5. Incinerator area tanks shall be equipped with emergency pressure-relief devices.

6. Any leaking or defective tank shall be repaired or emptied into a container or tank in good condition. The repair or emptying shall occur as soon as possible but not later than the end of the next daylight shift.

7. When loading a tank truck, trailer, rail car or marine vessel with hazardous liquids or vapors, any displaced hazardous vapors shall be disposed of in the incinerator or equivalent device.

8. Transport vessels being loaded with hazardous waste shall have been leak tested within one year as evidenced by prominently displayed certification. Leak testing methods shall comply with the requirements of the biannual Department of Transportation hydrostatic test method found in 49 CFR Part 177.824, "Retesting and Inspection of Cargo Tanks."

K. Fugitive Monitoring and Maintenance Requirements

The permittee shall comply with these requirements for all equipment items which contact hazardous wastes:

1. Construction of new or replacement piping, valve, and pump systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

2. All new or replacement valves and unwelded piping connections in hazardous waste service shall be above ground and so located as to be reasonably accessible for leak-checking during plant operation.

3. All new or replacement piping connections larger than two-inch nominal pipe size shall be welded or flanged.

[III.K.]

4. Prior to operation, all new or replacement pump, valve, and piping connections shall be hydrotested or gas tested at 100 percent or more of the maximum operating pressure and adjustments made as necessary to obtain bubble-tight, leak-free performance.

5. All new or replacement pumps shall be sealless or equipped with double mechanical seals using water or a non-volatile and non-hazardous barrier fluid which operates at a pressure greater than the process pressure.

6. All pumps, valves, flanges, and emergency pressure-relief devices shall be inspected on a daily basis for visual, audible, or olfactory evidence that the item is leaking.

7. All pumps, valves, flanges, and emergency pressure-relief devices shall be monitored quarterly with a hydrocarbon gas analyzer. Monitored values greater than 10,000 ppm as measured by EPA Method 21 shall be considered evidence of a leak.

8. Visibily leaking equipment shall be taken out of service or repaired or replaced by the end of the next daylight shift. Monitored leaking equipment shall be tagged and replaced or repaired within 15 days after the leak is found.

9. Records of monitoring and maintenance actions shall be maintained for a period of three years and shall be made available to authorized state and local air pollution control agency personnel upon request and shall, as a minimum, include the following data:

   a. List of all components monitored.

   b. Checklist indicating that regular inspections are being performed.

   c. Summaries of monitoring and inspection information including the date, time, equipment identification, monitoring or inspection results and corrective actions taken for all leaking components and subsequent monitoring results confirming the effectiveness of the corrective action. Summaries may be computerized but shall be signed by the person responsible.

   d. Records of the calibration of the hydrocarbon gas analyzer.

10. In lieu of Provisions III.K.7.-9., the permittee may use the standards, methods, procedures, record keeping, and reporting requirements of 40 CFR Part 61, Subpart V for leak monitoring of any chemical in addition to the chemicals specified in Subpart J.

IV. Closure

A. General Closure Requirements:

1. The permittee shall provide financial assurance for closure in accordance with the form outlined in 40 CFR 264, Subpart H in an initial amount not less than $121,560. This financial assurance amount will be adjusted annually as specified in Provision IV.A.2.a. Financial assurance shall be secured and maintained in compliance with Commission regulations on hazardous waste financial requirements (31 TAC Section 335.152 and 40 CFR Part 264, Subpart H).

2. The permittee shall submit to the Executive Director upon request such information as may be necessary to determine the adequacy of financial assurance.

a. Within 60 days prior to the anniversary date of the financial assurance documents, or within 30 days after the firm's fiscal year for firms using the financial test or corporate guarantee, the facility's closure cost estimate shall be updated for inflation and submitted to the Executive Director. The adjustment shall be made by recalculating costs in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator. Pursuant to 31 TAC 335.178, the cost estimate for closure shall be based on off-site disposal during closure of all waste and waste residue for all units not required to close as landfills.

b. If changes in the closure plan will increase the cost of closure, then the cost estimate shall be revised within 30 days after approval of the plan by the Executive Director. The revised cost shall also be adjusted as specified in Provision IV.A.2.a.

3. Facility closure shall commence

a. Upon direction of the Texas Water Commission or the Executive Director for violation of the permit, TWC Rules, or State Statutes;

b. Upon suspension, cancellation, or revocation of the terms and conditions of this permit concerning the authorization to store, process, or dispose of waste materials;

c. Upon abandonment of the site;